Endometrial Cancer

Incidence and Mortality

Endometrial cancer is both the most common type of uterine cancer and the most common cancer of the female reproductive system, accounting for approximately six percent of all cancers in women in the United States. Since 2006, incidence rates have increased among all population groups. Overall mortality rates have increased slightly since the mid-1990s. Although the incidence rate of endometrial cancer is lower in African-American women than in whites, their mortality rate is nearly twice as high as that in all other racial/ethnic groups.

Several factors are associated with an increased risk of endometrial cancer, including obesity, exposure to endogenous or exogenous estrogens, tamoxifen use, and certain inherited conditions. Factors associated with a reduced risk include engaging in physical activity, taking combination oral contraceptives, and having a history of pregnancy and/or breastfeeding. Surgical removal of the uterus or hormone therapy is used to prevent endometrial cancer in women with endometrial hyperplasia. There is no standard or routine screening test for endometrial cancer. Standard treatments for endometrial cancer include surgery, radiation therapy, chemotherapy, and hormone therapy.

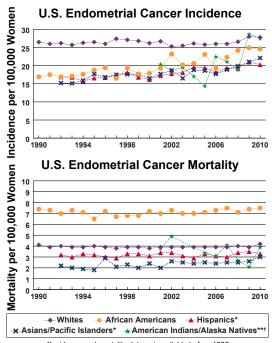
It is estimated that approximately \$2.6 billion¹ is spent in the United States each year on uterine cancer treatment.

Source for incidence and mortality data: Surveillance, Epidemiology, and End Results (SEER) Program and the National Center for Health Statistics. Additional statistics and charts are available at the SEER Web site.

Trends in NCI Funding for Endometrial Cancer Research

The National Cancer Institute's (NCI) investment² in endometrial cancer research increased from \$17.1 million in fiscal year (FY) 2008 to \$19.1 million in FY 2012. In addition to this funding, NCI supported \$8.2 million in endometrial cancer research in FY 2009 and FY 2010 using funding from the American Recovery and Reinvestment Act (ARRA).³

Source: NCI Office of Budget and Finance.

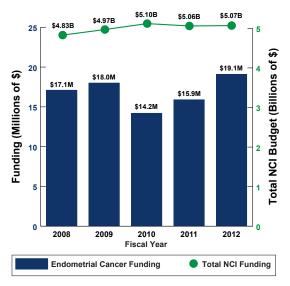


*Incidence and mortality data not available before 1992.
**Incidence and mortality data not available before 2001.

†Incidence and mortality rates are interpolated for some data points due to fewer than 16 cases per year.

Source: Surveillance, Epidemiology, and End Results (SEER) Program and the National Center for Health Statistics. Additional statistics and charts are available at the SEER Web site.

NCI Endometrial Cancer Research Investment



Source: NCI Office of Budget and Finance

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Cancer Trends Progress Report, in 2010 dollars.

The estimated NCI investment is based on funding associated with a broad range of peer-reviewed scientific activities. For additional information on research planning and budgeting at the National Institutes of Health (NIH), see About NIH.

For more information regarding ARRA funding at NCI, see <u>Recovery Act Funding</u> at NCI

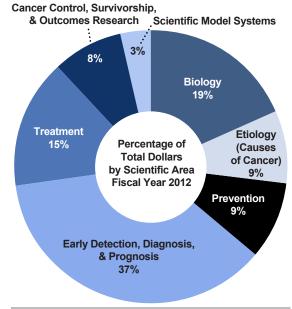
Examples of NCI Activities Relevant to Endometrial Cancer

- NCI's <u>Division of Cancer Epidemiology and Genetics</u> conducts a
 number of endometrial-cancer-related studies, including <u>Assessment</u>
 <u>of Screening Modalities for Gynecologic Cancers</u>, a feasibility study
 assessing the use of alternative sampling techniques in combination
 with molecular assays to detect endometrial and ovarian cancer.
- The Breast and Gynecologic Cancer Research Group supports studies
 on prevention and early detection of endometrial cancer, including
 a clinical trial exploring whether hormone therapy can prevent
 endometrial cancer in women who have hereditary nonpolyposis colon
 cancer syndrome, which increases the risk for endometrial cancer.
- The <u>Epidemiology of Endometrial Cancer Consortium</u> supports molecular <u>epidemiology</u> and genome-wide association studies of endometrial cancer.
- The Mouse Models of Human Cancers Consortium (MMHCC) has developed several murine cancer models, including those of the reproductive system, which are available to the research community.
- The Cancer Genome Atlas (TCGA) researchers are systematically identifying the major genomic changes involved in more than 20 cancers using state-of-the-art genomic analysis technologies. Recently published results from the TCGA Endometrial Study revealed molecular characteristics in endometrial cancer that could provide insight on diagnostic classification and treatment strategies. [PubMed Abstract]
- One endometrial-cancer-specific **Specialized Program of Research Excellence (SPORE)** focuses on new approaches to preventing, identifying, and treating endometrial cancers.

Additional Resources for Endometrial Cancer

- The What You Need To Know About[™] Cancer of the Uterus booklet contains information about the possible causes, symptoms, diagnosis, and treatment of cancer of the uterus. Information specialists also can answer questions about cancer at 1-800-4-CANCER.
- The NCI **Endometrial Cancer Home Page** directs visitors to upto-date information on endometrial cancer treatment, prevention, genetics, causes, screening, testing, and other topics.
- Information on treatment options for endometrial cancer is available from PDQ, NCI's comprehensive cancer database.
- Clinical trials for endometrial cancer can be found in NCI's list of clinical trials.

NCI Endometrial Cancer Research Portfolio



Source: NCI Funded Research Portfolio. Only projects with assigned common scientific outline area codes are included. A description of relevant research projects can be found on the NCI Funded Research Portfolio Web site.

Selected Advances in Endometrial Cancer Research

- In a study among Medicare beneficiaries, a <u>laparoscopic</u> hysterectomy for <u>stage I endometrial cancer</u> results in fewer complications than abdominal hysterectomy; however, uptake of this minimally invasive surgery has been slow. Published June 2012. [PubMed Abstract]
- In an international study, women who last gave birth at age 40 or older had less than one-half the risk of endometrial cancer as women who last gave birth before age 25. Published July 2012. [PubMed Abstract]
- The discovery of new genes that frequently are mutated in uterine <u>serous</u> carcinoma tumors points to potential new treatment targets for this aggressive form of endometrial cancer. Published January 2013. [PubMed Abstract]
- DNA from endometrial cancers can be detected in a standard liquid Pap smear, a promising step toward a broadly applicable screen for early detection of this cancer. Published January 2013. [PubMed Abstract]
- Click <u>here</u> to access selected free full-text journal articles on advances in NCI-supported research relevant to endometrial cancer. Click <u>here</u> to search for additional scientific articles or to complete a <u>search tutorial</u> on PubMed.

